

# **Science and Elementary Technology**

**PSET**

**02/11/2016 09: 00-11: 00 AM**



**Pupil's complete index number**

**Province   District   Sector   School   Pupil  
City**

<input type="text"/>									
----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------

**Pupil's names**

**Surname:** .....

**Other names:** .....

**PUPIL'S INDEX NUMBER AND NAME  
MUST BE WRITTEN AS THEY APPEAR  
ON THE REGISTRATION FORM.**

## **PRIMARY LEAVING NATIONAL EXAMINATIONS, 2016**

### **SCIENCE AND ELEMENTARY TECHNOLOGY**

**DURATION : Two hours**

**Marks :**

**/100**

### **INSTRUCTIONS**

- 1) Do not open this question paper until you are told to do so.
- 2) ***This paper consists of 12 pages and 37 questions. Before starting, check if all pages and all questions are there and are arranged in ascending order.***
- 3) This paper has **two sections: A and B**.
- 4) Questions in both sections are compulsory and must be answered as instructed.
- 5) Read each question carefully before answering it.
- 6) Answer the questions in the space provided on this question paper.
- 7) You must use a blue or black pen and a pencil for drawing.

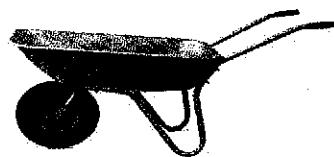


**SECTION A: ANSWER ALL QUESTIONS. (50 MARKS)**

1) (a) What is a simple machine? .....

..... (2marks)

(b) Name the parts of the simple machine below.



(i) ..... (1mark)

(ii) ..... (1mark)

(iii) ..... (1mark)

(c) In which class of machines is the simple machine in (b) above? (1mark)

.....

2) Name two ways of controlling dangers caused by stagnant water. (2marks)

.....  
.....

3) Write two sources of artificial light.

(a) ..... (1mark)

(b) ..... (1mark)

4) Why do we wear opaque clothes? (2marks)

.....  
.....  
.....

- 5) Which form of energy is commonly used to:
- (a) make cars move? ..... **(1mark)**
- (b) enables human beings to see? .. **(1mark)**
- 6) State any two properties of metals.
- (a) ..... **(1mark)**
- (b) ..... **(1mark)**
- 7) State any two possible dangers of wind.
- (a) ..... **(1mark)**
- (b) ..... **(1mark)**
- 8) State any two properties of a liquid.
- (a) ..... **(1mark)**
- (b) ..... **(1mark)**
- 9) Calculate the mass of a body with density  $0.9\text{g/cm}^3$  and  
volume  $20\text{cm}^3$ . **(2marks)**

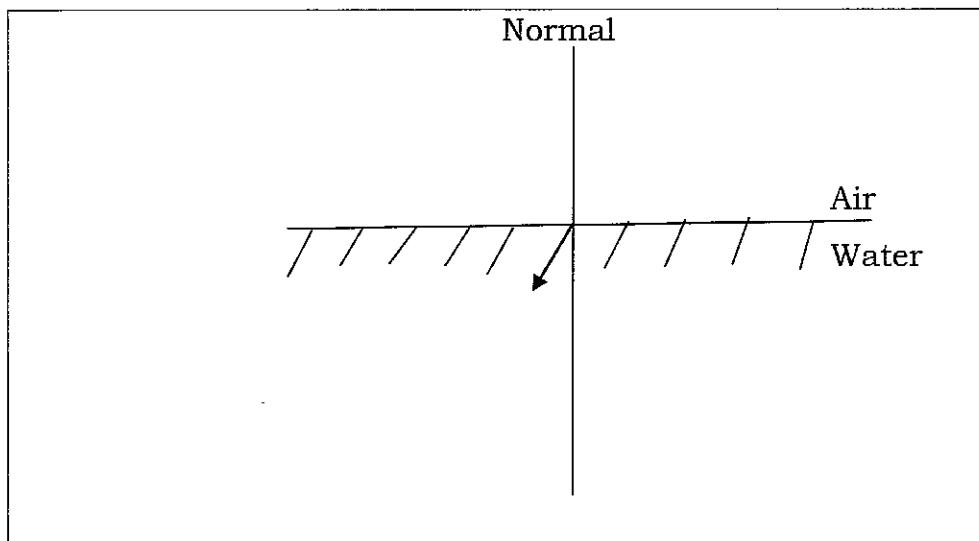
.....  
.....  
.....  
.....  
.....  
.....

- 10) Why does a stone sink into water? **(2marks)**

.....  
.....  
.....  
.....  
.....

- 11) Complete the diagram below and label incident ray, angle of incidence and angle of refraction.

(2marks)



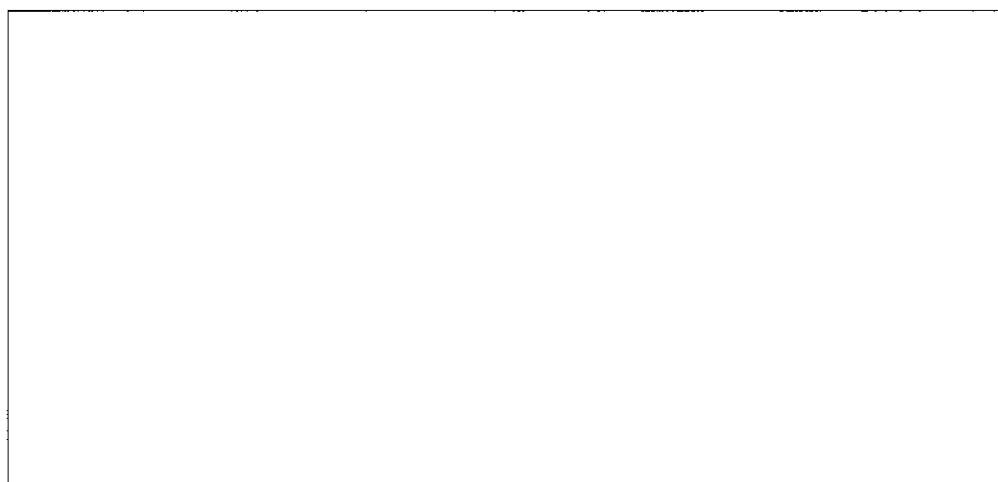
- 12) What is the difference between conduction of heat and radiation of heat?

(2marks)

.....  
.....  
.....  
.....

- 13) Draw a simple electric circuit composed of 2 cells in series, a lamp and a switch.

(2marks)



14) What is the use of each of the following in an electric circuit?

(a) a dry cell? ..... (1mark)

(b) a bulb? ..... (1mark)

15) How is electricity useful in helping radio and TV communication?(2marks)

.....  
.....  
.....

16) What is an echo? (2marks)

.....  
.....

17) Why is music a pleasant sound to hear and noise an unpleasant sound to hear? (2marks)

.....  
.....  
.....

18) Why is pond water not good for drinking? (2marks)

.....  
.....  
.....

19) How do you change water vapour to liquid water? (2marks)

.....  
.....

20) What is a penumbra shadow? (2marks)

.....  
.....

21) Which form of energy helps us to hear? **(2marks)**

.....  
.....

22) Name any two substances which are attracted by a magnet.

- (a) ..... **(1mark)**  
(b) ..... **(1mark)**

23) If you have a mixture of iron filings and sand, how can you separate them? **(2marks)**

.....  
.....

**SECTION B: ANSWER ALL QUESTIONS. (50 MARKS)**

24) (a) What is meant by "communicable diseases"? **(1mark)**

.....  
.....

(b) Give any two examples of communicable diseases.

- (i) ..... **(1mark)**  
(ii) ..... **(1mark)**

25) (a) What is meant by sexually transmitted infections (STIs)? **(1mark)**

.....  
.....  
.....

(b) Name any two ways of preventing the spread of STIs.

- (i) ..... **(1mark)**  
(ii) ..... **(1mark)**

26) (a) What is a 'balanced diet'? **(1mark)**

.....  
.....  
.....  
.....

(b) Name any two sources of vitamins.

- (i) ..... **(1mark)**  
(ii) ..... **(1mark)**

(c) What is a "deficiency disease"? **(1mark)**

.....  
.....  
.....  
.....

(d) A child that lacks calcium and phosphorus is likely to suffer from ..... **(1mark)**

27) Digestion of food starts in the (a) ..... **(1mark)**  
and ends in the (b) ..... **(1mark)**

28) Name the digestive juices found in the:

- (a) mouth ..... **(1mark)**  
(b) stomach ..... **(1mark)**  
(c) small intestines ..... **(1mark)**

29) Give the names of two organs that are not part of the alimentary canal but are very important in producing digestive juices.

(a) ..... **(1mark)**

(b) ..... **(1mark)**

30) (a) In human beings, what are the names of:

(i) male sex cells? ..... **(1mark)**

(ii) female sex cells? ..... **(1mark)**

(b) The process by which an ovary releases an ovum after every 28 days is known as ..... **(1mark)**

31) (a) State the four main components of blood.

(i) ..... **(1mark)**

(ii) ..... **(1mark)**

(iii) ..... **(1mark)**

(iv) ..... **(1mark)**

(b) ..... is a component of blood responsible for blood clotting. **(1mark)**

32) (a) Which excretory product is removed by all the body excretory organs? ..... **(1mark)**

(b) List down any four functions of the skin.

(i) ..... **(1mark)**

(ii) ..... **(1mark)**

(iii) ..... **(1mark)**

(iv) ..... **(1mark)**

33) (a) Animals move in order to:

- (i) ..... **(1mark)**  
(ii) ..... **(1mark)**

(b) Give one example of animals that:

- (i) walk: ..... **(1mark)**  
(ii) crawl: ..... **(1mark)**

34) (a) The process by which plants lose water into the atmosphere

is known as ..... **(1mark)**

(b) State four conditions necessary for the process of photosynthesis.

- (i) ..... **(1mark)**  
(ii) ..... **(1mark)**  
(iii) ..... **(1mark)**  
(iv) ..... **(1mark)**

35) (a) Harmful substances that pollute water are known

as ..... **(1mark)**

(b) State four things that can pollute water.

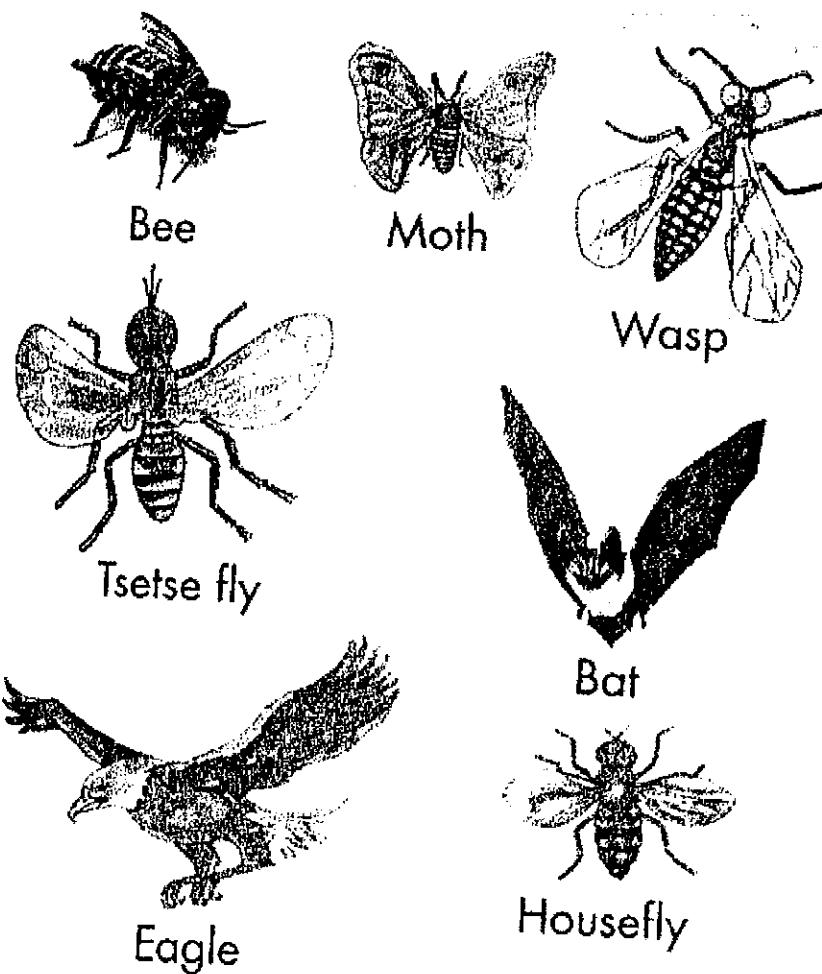
- (i) ..... **(1mark)**  
(ii) ..... **(1mark)**  
(iii) ..... **(1mark)**  
(iv) ..... **(1mark)**

36) After fertilisation has taken place in plants, the ovules grow to

become ..... , while the ovary becomes ..... **(2marks)**

37) Classify the organisms below into three groups.

**Figure**



- (a) ..... (1mark)
- (b) ..... (1mark)
- (c) ..... (1mark)

# **BLANK PAGE**